CONNECTED NATION

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June 9, 2009

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street SW
Suite TW-A325
Washington, DC 20554

Re: GN Docket No. 09-51, Comments of Connected Nation, Inc.

Dear Ms. Dortch,

Attached is a document containing answers to frequently asked questions about Connected Nation's broadband mapping for the Commission's information in reference to GN Docket No. 09-51.

Sincerely,
s/
Laura Taylor
Chief Analyst
Connected Nation, Inc.

Attachment

CONNECTED NATION®'S BROADBAND MAPPING METHODOLOGY

Frequently Asked Questions

As a national 501(c)(3) non-profit corporation, Connected Nation® is focused solely on closing the digital divide. Connected Nation exists to help states, communities, families, and individuals realize the great economic and social advantages that occur when broadband availability is accelerated in underserved areas and broadband use is increased in all areas – rural and urban alike.

Through its advanced broadband mapping technology, Connected Nation has been at the forefront of a national movement by state and local leaders to identify and map areas with and without broadband service and to identify and implement aggressive demand-stimulation programs that are designed to increase broadband adoption and encourage network deployment. In 2008, the *Wall Street Journal* profiled Connected Nation's work as one of the seven best ideas for economic development around the globe (Wall Street Journal, July 28, 2008[1]).

What states has Connected Nation mapped?

Connected Nation created the first broadband inventory map in 2005 in Kentucky. Since then, CN has created or is in the process of creating broadband inventory maps in states across the nation, including Colorado, Kansas, Minnesota, North Carolina, Ohio, Tennessee, Illinois, South Carolina and West Virginia.

Who does Connected Nation work with to produce the maps?

Connected Nation begins by forming a public-private partnership with providers and state leaders to implement a mapping strategy for that state. Broadband inventory data is obtained directly from providers, the only reliable source for such infrastructure information, which voluntarily collaborate with Connected Nation through a constructive partnership to ensure their service offerings are accurately represented on the map.

Connected Nation is proud to count as mapping partners more than 300 providers across the nation including large multinational firms, local cooperatives or small wireless entrepreneurs, and providers using any and all types of available technology to deploy terrestrial broadband, including fixed wireless, digital subscriber line (DSL), cable modem, fiber, mobile wireless and hybrid systems that combine different technologies.

Do large telecom providers have control over the data represented on a state broadband map?

When developing a broadband map in any given state, Connected Nation works with many providers both large and small. For example, in Minnesota Connected Nation mapped more than 121 providers (large and small). Each provider submits their own data and retains rights to their own data. A provider has no access to and plays no role in processing data from any other broadband provider. Every broadband provider, whether or not it is a formal partner of Connected Nation, has the same level of access to the statewide broadband maps.

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1 Faster and Stronger: High-speed Internet access is allowing rural Kentucky to stay in the economic-development game, *Wall Street Journal,* July 28, 2008*;* **http://online.wsj.com/article/SB121676442873775111.html?mod=JR-Econ-Development-July-2008**.

Is provider participation mandatory?

Provider participation is voluntary. Connected Nation goes to great lengths building relationships with providers to earn 100 percent participation within a state. Connected Nation has adopted a flexible mapping process to collect data from providers in a variety of formats based on their technical capabilities. Since the majority of broadband providers do not have data stored in any single or standard format, Connected Nation works in the field with providers to understand their data and network structure and help them "translate" this information into a useful GIS format in order to produce accurate availability maps.

What types of broadband are depicted on the maps and how granular are they?

Connected Nation employs geographic information systems (GIS) mapping technology that enables depiction of broadband capacity down to the street level. Connected Nation's maps provide information regarding available broadband service at the household level by type of platform (including but not limited to DSL, cable, fiber, fixed wireless, mobile wireless, and broadband over power lines), percentage of homes with and without broadband by county, number and density of households in unserved areas, and average broadband speeds available at any given county.

What type of information is kept confidential and why?

The data that is protected via non-disclosure agreements is limited to highly sensitive network infrastructure information, which is processed by Connected Nation to determine the broadband availability footprint and GIS maps. In particular, the specifications of the network infrastructure and equipment, such as the frequencies and beamwidth of wireless signals, latitude/longitude coordinates of digital subscriber line access multiplexers (DSLAMs), or the specifications of fiber routes, remain confidential.

The reasons why this data remains confidential are two-fold: in order to protect the physical integrity of the backbone of the United States communications system, an issue of homeland security; and in order to protect competitively sensitive providers' infrastructure and equipment information. Note this recent network sabotage[2] example in California.

Are the maps accurate and verifiable?

Ensuring verifiability and; therefore, accuracy of broadband maps has been a primary concern of Connected Nation's mapping program since its inception. Connected Nation's maps are designed to ensure transparency and are verified for accuracy on a continual basis. This is essential to ensure accuracy of original maps as they are generated and ensure they are updated in real time as new networks are deployed or upgraded.

Source data verification is a critical component of effective broadband mapping for a number of reasons:

- Providers have every incentive to be truthful as they report their broadband service territory when there is a transparent, effective method of verification of such data.
- More importantly, broadband inventory maps represent a visual, geographic *estimation* of broadband coverage at a given point in time. Hence, a system of ongoing verifiability is needed to contrast the data with the reality on the ground and, where needed, correct inaccuracies.
- The broadband landscape changes continuously. A map that is not updated and verified on a continual basis becomes quickly obsolete.

Connected Nation uses a combination of methods in an effort to ensure transparency and verifiability of the broadband maps:

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[2] AT&T raises reward in phone-outage sabotage, *San Jose Mercury News,* April 10, 2009*;* http://www.mercurynews.com/topstories/ci_12119748?nclick_check=1&forced=true.

- Connected Nation engineers conduct extensive field tests, and the results of those tests are documented and compared against provider data to ensure accuracy.
- Connected Nation conducts random quality control checks to validate the latitude/longitude of infrastructure such as digital subscriber line access multiplexers (DSLAMs), broadcast towers, and other vertical assets such as water towers. Quality control checks are also conducted via spectrum analyzer to verify the frequencies being used by known unlicensed WISPs or licensed providers.
- Connected Nation establishes a transparent system for third-party verification of broadband availability data. All of the maps are available to the public on-line (e.g., www.connectmn.org) so that consumers and local stakeholders can verify the broadband availability down to the street level using the interactive web tools. Connected Nation offers a direct link on its Web site, along with a telephone hotline, where third parties can provide instant feedback on any potential inaccuracies to be corrected immediately.

For more information about Connected Nation mapping program , visit www.connnectednation.org/mapping.

To view statements in support of Connected Nation, click here[3].

[3] http://www.connectednation.org/_documents/CommentsInSupportofConnectedNation_FINAL.pdf

APPENDIX

Connected Nation®'s Response to Recent Media Coverage

On June 3, 2009, the *Wall Street Journal* printed an article regarding Connected Nation® and our implied inability to map broadband availability in a trustworthy manner. This article regurgitated the false claims of Art Brodsky and Public Knowledge and portrays them as a dependable source.

Connected Nation has always worked with utmost transparency and is dedicated to the mission that all Americans know the endless opportunities that broadband provides. For more than a year, we have refuted all of these claims in multiple FCC filings in the public docket last year as well as speeches, presentations and news articles. However, it seems worth addressing again in light of the recent article.

Public Knowledge's allegations in the article can be summarized as this:

- Connected Nation is portrayed as a front for a private-sector conspiracy dominated by large broadband providers--an allegation that conveniently fails to acknowledge the vast number of national and state level partners of Connected Nation. To date, well more than three hundred providers of broadband have partnered with Connected Nation for state based broadband mapping. Connected Nation works with the smallest and largest providers of any state in which it does mapping. Public Knowledge's allegations also fail to account for the scores of testimonies from individuals and communities that have benefited from the work of Connected Nation's mapping or public-private partnerships. Connected Nation not only presents transparent maps of a state's broadband, the partnership is making a difference in closing the digital divide.

- Connected Nation's broadband inventory maps are not verifiable and transparent, represent only select providers, and attempt to conceal data. In reality, Connected Nation's state maps are published online and made available for address level searches and full public scrutiny of household level data that has been submitted by hundreds of broadband providers of all platforms and company size, private and public alike.

For over a year, Connected Nation has focused on continuing its efforts to produce real results that benefit real people across the United States. Frustrated that organizations like Public Knowledge are trying to undermine the work we passionately believe in by irresponsibly publishing fraudulent allegations, we seek here to set the record straight by reminding public leaders and broadband stakeholders at large of the facts about Connected Nation.

- Connected Nation's national partners include: the Alliance for Digital Equality, the American Academy of Nursing, the American Farm Bureau Federation, the American

Homeowners Grassroots Alliance, AT&T, the Children's Partnership, Cisco Systems, Comcast Corporation, the Communications Workers of America (CWA), CTIA—The Wireless Association, DigitalBridge Communications, the Entertainment Consumers Association (ECA), the Information Technology and Innovation Foundation (ITIF), Intel Corporation, the Internet Innovation Alliance, the Joint Center for Political & Economic Studies, the Kansas Farm Bureau Federation, Microsoft Corporation, the Minority Media and Telecommunications Council (MMTC), the National Association of State Chief Information Officers (NASCIO), the National Cable Telecommunications Association (NCTA), the National Consumers League, the National Grange, NIC, the Ohio Farm Bureau Federation, the Phoenix Center for Advanced Legal and Economic Studies, the Telecommunications Industry Association, the Tennessee Farm Bureau Federation, the U.S. Chamber of Commerce, USTelecom—The Broadband Association, Verizon Communications, Voyant International Corporation, and the World Institute on Disability.

- Connected Nation state-level partnerships include multiple other public and private organizations representing diverse interests and constituents across the state.

- Connected Nation receives the bulk of its funding through its work with state governments for providing mapping and research services as well as implementing grassroots programs to increase broadband adoption. These include community technology planning and programs that provide computers and connectivity to those who otherwise could not afford them.

- The main goal of Connected Nation is to work with community leaders to stimulate adoption of broadband services and, in turn, promote investment in network infrastructure build-out. Connected Nation has already established approximately 300 local technology planning teams in as many counties across the nation (representing more than 6,000 local volunteers from both the public and private sectors) that today lead their communities towards greater access to and use of broadband and Information Technology.

- Connected Nation remains committed to improving the process to create accurate, transparent and meaningful maps that provide support and direction to state and local leaders, broadband providers and interested citizens. However, our maps are best supported by the feedback of those most involved and affected. This public feedback loop has proved to be an integral and essential mechanism for ensuring the meaningful quality of Connected Nation's maps. We have been committed to these points for years, working with Congress for the national map and towards a standardized process to ensure a meaningful content and mapping success.

Connected Nation has worked since its inception to continually improve its ability to achieve measurable results, learning from its experiences and using that experience to develop best practices. These results, and the countless testimonies from Americans that have been directly impacted by our partnership efforts, speak for themselves.

In order to provide even more assurance of our maps' accuracy, Connected Nation will soon be announcing a process for third party validation of our mapping efforts. In the meantime, we have the benefit of a thorough analysis of Connected Nation's programming in Kentucky from academic community. For those who are seeking a thorough methodology to measure the impact of ConnectKentucky, they can turn to the Michigan State University study at https://www.msu.edu/~larose/ruralbb/.

The case study on ConnectKentucky concludes,

> "The Connect Kentucky program apparently closed digital divides between young and old and better educated and less educated residents at the Kentucky site. There, the levels of broadband adoption reached levels close to those found in urban areas. This offered further evidence that the broadband gap may be closed through a combination of access to technology and targeted community development efforts."

In closing, I encourage readers to do their homework. Mr. Brodsky has successfully made noise regarding his thoughts about Connected Nation. Unfortunately, his thoughts and attacks are unfounded and deter from the true mission of Connected Nation:

> *"Connected Nation believes that states, communities, families and individuals can realize great economic and social advantages when we accelerate broadband availability in underserved areas and increase broadband use in all areas, rural and urban, alike."*

I hope you will make a concerted effort to learn more about Connected Nation's efforts. I encourage you to ask questions of us and allow us the opportunity to clearly answer your questions. In our time in the towns, communities, and cities of America, I have learned the open and honest communication is the only way to make apparent the value of broadband technology, and it is my hope that this exercise will allow us to understand that broadband is fundamental to our mutual and national success. But you don't have take our word for it. Below are a few of the many publicly filed comments from local officials who have actually worked with Connected Nation and can attest to the impact of our programs.

STATEMENTS FROM STATE & LOCAL GOVERNMENT OFFICIALS

GOVERNOR TED STRICKLAND, STATE OF OHIO [4]

"I understand that the Federal Communications Commission is considering its role in the process of mapping broadband infrastructure. […] I urge you to work with, facilitate, and encourage public-private partnerships like Connect Ohio. These programs are taking hold and proving to be an effective method of achieving the goal of ubiquitous broadband that we share. […] Connect Ohio's state-based broadband maps are critical to the program's success. The accuracy and usefulness of

[4] Comments to the Federal Communications Commission, August 22, 2008 http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6520064914

these maps depend upon our ability to work with broadband providers, community leaders, and consumers through a collaborative process whereby we help each other build, verify, and update the maps. A federal program that works with and supports state-based broadband mapping through public-private partnerships would be a solutions-oriented approach to national broadband mapping."

DIANE WELLS, MANAGER TELECOMMUNICATIONS DIVISION, MINNESOTA DEPARTMENT OF COMMERCE [5]

"As a result [of Connected Nation's State web-based maps of broadband availability in Minnesota], the State of Minnesota now has an invaluable set of tools for identifying unserved and underserved households in our state, understanding why households are still unserved, and developing specific policies to promote expansion of the broadband market to ensure all Minnesota residents have access to broadband. The State selected Connected Nation as a result of the company's innovative model that works on behalf of the State to develop high quality and verifiable products. Further, the State of Minnesota decided that Connected Nation's approach to mapping, based on voluntary collaboration with the provider community, is the most expedient and effective way to produce this important policy tool. Now having this tool in hand to inform our public policy, we are confident we made the correct choice. Connected Nation and Connect Minnesota have been excellent partners for Minnesota. As [the Federal Government] develop[s] a plan for mapping broadband availability across the United States, we invite and encourage you to look closely at Minnesota's broadband mapping process. We believe you will find an excellent model for mapping broadband availability in such a way that is transparent, verifiable, continuously updated, and perhaps most importantly, practical and valuable for identifying those unserved and underserved areas of Minnesota."

MARK DAVID GOSS, CHAIRMAN, KENTUCKY PUBLIC SERVICE COMMISSION (2004 – 2008) [6]

"ConnectKentucky has proven that the data obtained through a collaborative approach is much more accurate than what could be achieved through government regulation. And ironically, the public-private partnership structure itself enables a much greater level of transparency than what government could provide to consumers. It is critical to remember that the preliminary technical network data that ConnectKentucky originally receives from broadband providers is meaningless to consumers. The real value in ConnectKentucky's mapping program is not even that it gets around the proprietary issues involved with the provider data, but rather in ConnectKentucky's work in the field with broadband providers to gather the data necessary for the map, then translate it into GIS format, and finally represent the data in the most public and transparent of formats so that the consumer can be the ultimate judge of the data."

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[5] Comments to NTIA, April 13th, 2009
http://www.ntia.doc.gov/broadbandgrants/comments/790C.pdf

[6] Comments to the Federal Communications Commission, August 22, 2008
http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6520038658